CHAPTER Env-A 2100 PARTICULATE MATTER AND VISIBLE EMISSIONS STANDARDS

Statutory Authority: RSA 125-C:4:I, (a) and (e)

Readopt with amendment Env-A 2101, effective 1-18-97 (Doc. #6428-B), to read as follows:

PART Env-A 2101 PURPOSE

Env-A 2101.01 Purpose. The purpose of this chapter is to establish standards for particulate matter and visible emissions for those stationary sources or devices that are not specifically regulated pursuant to any other chapter, part, or section of this subtitle.

Repeal Env-A 2102, effective 1-18-97 (Doc. #6428-B), as follows:

~~PART Env-A 2102 SCOPE~~

~~Env-A 2102.01 Scope.~~

~~(a) Subject to (b), below, this chapter shall apply to any person who owns or operates a source or device utilized at a process, manufacturing, service-based industry or other source of particulate matter, acid mists, visible emissions, sulfur dioxide, or nitrogen oxides in the state.~~

~~(b) Those process, manufacturing, service-based industries or other sources of particulate matter, acid mists, visible emissions, sulfur dioxide, or nitrogen oxides which are governed specifically by other chapters, parts or sections of this subtitle shall be controlled by those particular chapters, parts or sections.~~

Readopt with amendments and renumber Env-A 2103, effective 1-18-97 (Doc. #6428-B), as Env-A 2102 so that Env-A 2102 reads as follows:

PART Env-A 2102 EMISSION STANDARDS FOR PARTICULATE MATTER

Env-A 2102.01 Applicability.

(a) Subject to (b), below, this part shall apply to any stationary source or device that is a source of particulate matter emissions discharged to the ambient air through a stack or exhaust and ventilation system.

(b) Those sources of particulate matter emissions that are governed specifically by other chapters, parts, or sections of this subtitle shall be controlled by those particular chapters, parts, or sections.

Env-A 2102.02 Definitions. "Exhaust and ventilation system" means any system that removes and transports particulate matter from the point of generation to the ambient air.

Env-A 2102.03 Emission Standards for Particulate Matter.

(a) For any stationary source or device installed after February 18, 1972, the owner or operator shall not cause or allow the emission of particulate matter at such source or device to exceed those emission standards specified for "New Devices" as listed in Table 2102-1, in (c), below.

(b) For any stationary source or device installed prior to or on February 18, 1972, the owner or operator shall not cause or allow the emission of particulate matter at such source or device to exceed those emission standards specified for "Existing Devices" as listed in Table 2102-1, in (c), below.

(c) Particulate matter emission standards shall be as set forth in Table 2102-1, below:

Table 2102-1 Particulate Matter Emission Standards

Process Weight Rate (tons per hour):	Emission Standard for "New Devices" Installed After February 18, 1972: (pounds per hour):	Emission Standard for "Existing Devices" Installed Prior to or on February 18, 1972 (pounds per hour):
0.025	0.36	0.43
0.05	0.55	0.68
0.25	1.53	1.99
0.5	2.58	3.17
2.5	7.58	9.35
5	12.0	14.85
10	19.2	23.62
30	40.0	49.31
40	42.5	51.03
60	46.3	55.55
90	49.0	58.88
100	51.2	61.53
500	69.0	82.75
1,000	77.6	93.11

Env-A 2102.04 Calculation of Particulate Matter Emission Standards.

(a) Where the process weight rate is not explicitly stated in Table 2102-1, above, the maximum allowable particulate matter emission rate shall be calculated by the equation which is applicable for the particular process weight, as designated in (b) and (c), below, where:

(1) "E" means the maximum allowable particulate matter emission rate in pounds per hour (lb/hr); and

(2) "P" means the process weight rate in tons per hour (tons/hr).

(b) For an "Existing Device" installed prior to or on February 18, 1972 with a process weight rate:

(1) Up to 30 tons/hr, P shall be raised to the 0.67 power and multiplied by 5.05, as in the formula below:

$$E = 5.05\ P^{0.67}$$

(2) In excess of 30 tons/hr, P shall be raised to the 0.11 power and multiplied by 66.0, and then 48 shall be subtracted from that result, as in the formula below:

$$E = 66.0\ P^{0.11} - 48$$

(c) For a "New Device" installed after February 18, 1972 with a process weight rate:

(1) Up to 30 tons/hr, P shall be raised to the 0.67 power and multiplied by 4.10, as in the formula below:

$$E = 4.10\ P^{0.67}$$

(2) In excess of 30 tons/hr, P shall be raised to the 0.11 power and multiplied by 55.0, and then 40 shall be subtracted from that result, as in the formula below:

$$E = 55.0\ P^{0.11} - 40$$

Repeal Env-A 2104 through Env-A 2106, effective 1-18-97 (Doc. #6428-B), as follows:

~~PART Env-A 2104 EMISSION STANDARDS FOR TOXIC PARTICULATE MATTER~~

~~Env-A 2104.01 Emission Standards for Toxic Particulate Matter. No person shall cause or allow the emission of any toxic particulate matter specified in Table 2104-1, in (d), below, to exceed the toxic particulate matter emission standard as calculated pursuant to this part.~~

~~Env-A 2104.02 Calculation of Toxic Particulate Matter Emission Standards.~~

~~(a) The toxic particulate matter standard shall be calculated by adjusting the applicable emission standard determined pursuant to Env-A 2103, in accordance with the formula in (b), below, where:~~

~~(1) "AE" means the toxic particulate matter emission standard in pounds per hour;~~

~~(2) "E" means the emissions standard in pounds per hour as determined pursuant to Env-A 2103; and~~

~~(3) "F" means the effects factor as designated in Table 2104-1, below.~~

~~(b) To calculate the toxic particulate matter emission standard, the emission standard determined pursuant to Env-A 2103 shall be multiplied by the effects factor for the specific toxic particulate matter designated in Table 2103-2, as in the formula below:~~

~~AE = E x F~~

~~(c) When 2 or more toxic particulate matter elements or compounds are emitted from the same stack, the most stringent effects factor of all particulate matter elements or compounds shall be used to determine the toxic particulate matter emission standard for such stack.~~

~~(d) Effects factors for toxic particulate matter emissions shall be as set forth in Table 2104-1, below:~~

~~Table 2104-1 Effects Factors For Toxic Particulate Matter~~

~~CAS Number~~	~~Toxic Particulate Matter~~	~~Effects Factor~~
~~7440-36-0~~	~~Antimony~~	~~0.9~~
~~7440-38-2~~	~~Arsenic~~	~~0.9~~
~~7440-39-3~~	~~Barium~~	~~0.9~~
~~7440-43-9~~	~~Cadmium~~	~~0.2~~
~~7440-47-3~~	~~Chromium~~	~~0.2~~
~~7440-48-4~~	~~Cobalt~~	~~0.9~~
~~7440-50-8~~	~~Copper~~	~~0.2~~
~~7440-58-6~~	~~Hafnium~~	~~0.9~~
~~7439-92-1~~	~~Lead - Lead arsenate~~	~~0.3~~
~~7580-67-8~~	~~Lithium hydride~~	~~0.04~~
~~7723-14-0~~	~~Phosphorus~~	~~0.2~~
~~7782-49-2~~	~~Selenium~~	~~0.2~~
~~7740-22-4~~	~~Silver~~	~~0.1~~

13494-80-9	Tellurium	0.2
7440-28-0	Thallium	0.2
7440-61-1	Uranium (soluble)	0.1
7440-61-1	Uranium (insoluble)	0.4
7440-62-2	Vanadium	0.2
1314-13-2	Zinc Oxide	0.8
7631-86-9	Crystalline Silica	0.4

PART Env-A 2105 SPECIFIC TOXIC PARTICULATE EMISSION STANDARDS

Env-A 2105.01 Toxic Particulate Matter Emission Standard and Ambient Air Concentration for Beryllium. No person shall cause or allow the emission of beryllium, CAS number 7440-41-7, from a source or device to exceed the emission standard of 10 grams over a 24-hour period, or the ambient air concentration of 0.01 ug/m^3 averaged over a 30-day period and measured in the vicinity of the source or device.

Env-A 2105.02 Toxic Particulate Matter Emission Standard for Mercury. No person shall cause or allow the emission of mercury, CAS number 7439-97-6, from any stationary source which processes mercury ore or recovers mercury, or one which uses mercury cathode cells to produce chlorine gas and alkali metal hydroxide, to exceed the emission standard of 2300 grams per 24-hour period.

Env-A 2105.03 Toxic Particulate Matter Emission Standard for Asbestos. No person shall cause or allow the emission of asbestos, CAS number 1332-21-4, in excess of those limits specified in 40 CFR 61.144.

PART Env-A 2106 EMISSION STANDARDS FOR ACID MISTS AND VAPORS

Env-A 2106.01 Emission Standards for Acid Mists, Including Sulfur Dioxide Mists, and Nitrogen Oxide Mists.

(a) Subject to Env-A 2106.02 through Env-A 2106.04, below, for those particular kinds of acid mists listed in Table 2106-1, below, no person shall cause or allow the emission of such acid mists from any source or device utilized at a process, manufacturing or service-based industry into the ambient air in excess of those standards specified in Table 2106-1, below:

Table 2106-1 Acid Mists Emission Standards

Types of Acid Mist/Vapor	Stack Gas Concentrations (mg/m^3 at standard conditions)
Sulfuric Acid, CAS number 7664-93-9, Mist	35
Nitric Acid, CAS number 7697-37-2, Mist and/or Vapor	70
Hydrochloric Acid, CAS number 7647-01-0, Mist and/or Vapor	210
Phosphoric Acid, CAS number 7664-38-2, Mist and/or Vapor	3

~~Env-A 2106.02 Emission Standard for Sulfur Dioxides at a Sulfuric Acid Production Unit. No person shall cause or allow the emission of sulfur dioxide, CAS number 7446-09-50, from a sulfuric acid production unit which exceeds 2 kg per metric ton, or 4 lbs per ton, in any 2-hour average.~~

~~Env-A 2106.03 Emission Standard for Nitrogen Oxides at a Nitric Acid Production Unit. No person shall cause or allow the emission of nitrogen oxides from any nitric acid production unit which exceeds 1.5 kg per metric ton, or 3 lbs per ton, in any 2-hour average.~~

~~Env-A 2106.04 Visible Emission Standard at a Nitric Acid Production Unit. No person shall cause or allow the visible fugitive emissions or visible stack emissions from any nitric acid production unit to be 10 percent opacity or greater for any continuous 6-minute period in any 60-minute period.~~

Readopt with amendment and renumber Env-A 2107, effective 1-18-97 (Doc. #6428-B), as Env-A 2103 so that Env-A 2103 reads as follows:

PART Env-A 2103 VISIBLE EMISSION STANDARDS

Env-A 2103.01 Applicability.

(a) Subject to (b), below, this part shall apply to any stationary source or device that is a source of visible emissions.

(b) Those sources of visible emissions that are governed specifically by other chapters, parts, or sections of this subtitle shall be controlled by those particular chapters, parts, or sections.

Env-A 2103.02 Visible Emission Standards.

(a) The owner or operator shall not cause or allow visible emissions from any stationary source or device subject to this part to exceed an average of 20 percent opacity for any continuous 6-minute period, except for one period of 6 continuous minutes in any 60-minute period during startup, shutdown, or malfunction.

(b) Opacity shall be determined in accordance with Env-A 807.

Repeal Env-A 2108, effective 1-18-97 (Doc. #6428-B), as follows:

~~PART Env-A 2108 PERMIT, FEE, TESTING, MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS~~

~~Env-A 2108.01 Permit, Fee, Testing, Monitoring, Recordkeeping, and Reporting Requirements. Sources or devices subject to this chapter shall comply with the following, where applicable:~~

~~(a) Permit requirements specified in Env-A 600;~~

~~(b) Fee requirements specified in Env-A 700;~~

~~(c) Testing and monitoring requirements specified in Env-A 800; and~~

~~(d) Recordkeeping and reporting requirements specified in Env-A 900.~~

Appendix

Provision of the Proposed Rule	**Specific State or Federal Statutes or Regulations which the Rule is Intended to Implement**
Env-A 2101 through 2103 (existing Env-A 2102 repealed, existing Env-A 2103 and 2107 renumbered as Env-A 2102 and 2103)	RSA 125-C:4, I(a); RSA 125-C:6, II
Env-A 2104 through 2106 and Env-A 2108 (repealed)	RSA 125-C:4, I(a); RSA 125-C:6, II